

EM400™ Mobile Radio

Industrial

SPECIFICATION SHEET



BENEFITS

8-character Alphanumeric Display

Easy-to-understand icons provide feedback on status of features such as scan, high/low power and Signal strength indicator (SSI).

Dual Priority Scan

Monitor communications in different channels without having to change manually to each channel periodically. And, if there is one or two channels that are most important, you can monitor them more often than the rest.

32 Channels

Easily organize your teams into different talkgroups. An ideal tool for complex operations where communication is key.

4 Programmable Buttons

Program the most common features for access at the touch of a button.

Selective Call

With the limited selective call feature, you can contact a specific radio user if required using the pre-programmed list.

MDC Call Alert

An extensive range of signaling capabilities allows you to exchange communication with a dispatch center using both sound and visual acknowledgement. These features can be used to signal discreetly in emergency situations and monitor workgroups efficiently.

Internal Voice Operated Transmission (VOX)

With the use of an appropriate audio accessory, you can speak and listen to a radio conversation without having to use your hands.

FEATURES

- 32 Channels
- 8-Character Alphanumeric Display
- Nuisance Channel Delete
- Dual Priority Scan
- Busy Channel Lockout
- Repeater / Talkaround
- X-Pand™
- Internal Voice Operated Transmission (VOX)
- Time-Out Timer
- CSQ / PL / DPL / inv-DPL
- Escalart
- MDC-1200 Signaling
 - PTT-ID (encode/decode)
 - Radio Check (decode)
 - Emergency (encode)
 - Selective Radio Inhibit (decode)
 - Selective Call (encode/decode)
 - Call Alert (decode)

- Quik-Call II Signaling
 - Call Alert (encode/decode)
 - Voice Selective Call (encode/decode)
- DTMF Signaling
 - PTT-ID (encode)
 - Call Alert (encode)
 - Voice Selective Call (encode)
- 4 Programmable Buttons
- Internal Option Board Port

ACCESSORIES

Motorola offers a wide range of original accessories to enhance your radio's functionality for every communication need. Motorola Original Accessories are built with the highest Motorola quality standards ensuring effectiveness and durability.



After 75 years of commitment, Motorola continues developing solid relations with its clients, based upon experience and technological quality.

A company recognized for its leadership, that offers innovative communication and information solutions, as well as, reliable customized solutions enabling companies to increase the performance of their operations while satisfying the business' requirements.

The EM400 mobile includes several features to enhance performance including: 32 channels, 8-character alphanumeric display, PTT-ID transmission, selective radio inhibit, dual priority scan, 4 programmable buttons, and internal VOX, among others.

EM400™ MOBILE RADIO



GENERAL	LOW POWER	HIGH POWER
Dimensions	Length x Width x Height 44mm x 169mm x 118mm (1.73in. x 6.67in. x 4.64in.)	
Weight	1.02 Kg (2.25 lbs.)	
Current Drain (typical)		
Standby	300 mA	
Receive @ Rated Audio with 7.5W external speaker @ 8 Ω	1.5A	
Transmit	7A @ 25W (VHF) 8A @ 25W (UHF)	9.5A @ 45W (VHF) 9A @ 40W (UHF)
Model Numbers	136-162 MHz LAM50JNF9AA1_N 146-174 MHz LAM50KNF9AA1_N 403-440 MHz LAM50QNF9AA1_N 438-470 MHz LAM50RNF9AA1_N 465-495 MHz LAM50SNF9AA1_N 490-527 MHz	136-162 MHz LAM50JQF9AA1_N 146-174 MHz LAM50KQF9AA1_N 403-440 MHz LAM50QPF9AA1_N 438-470 MHz LAM50RPF9AA1_N 465-495 MHz LAM50SPF9AA1_N 490-527 MHz LAM50TPF9AA1_N
Frequency Range / FCC Approval	136-162 MHz / ABZ99FT3048 146-174 MHz / AZ492FT3805 403-440 MHz / ABZ99FT4047 438-470 MHz / AZ492FT4856 465-495 MHz / ABZ99FT4063 490-527 MHz	136-162 MHz / ABZ99FT3049 146-174 MHz / ABZ99FT3046 403-440 MHz 438-470 MHz / ABZ99FT4048 465-495 MHz / ABZ99FT4049 490-527 MHz
Channel Spacing	12.5 / 20 / 25 kHz	
Frequency Stability (-30°C to 60°C, 25°C Ref.)	±2.5 ppm	


TRANSMITTER	Low Power	High Power
RF Power Output	1 - 25W	25 - 45W (VHF) 25 - 40W (UHF)
Modulation Limiting	±2.5 @ 12.5kHz / ±4 @ 20kHz / ±5 @ 25 kHz	
Hum and Noise (typical)	-40dB (VHF) @ 12.5 kHz -35dB (UHF) @ 12.5 kHz	-45dB (VHF) @ 25 kHz -40dB (UHF) @ 25 kHz
Emissions (conducted and radiated)	-36 dBm < 1 GHz / -30 dBm > 1 GHz	
Audio Response (0.3 - 3 kHz)	ETS 300 and TIA 603	
Audio Distortion	3%	

RECEIVER	@12.5 kHz	@ 25 kHz
Sensitivity (12 dB SINAD) (typical)	0.35µV	
Intermodulation	-65dB (VHF) / -60dB (UHF) -75dB (VHF) / -70dB (UHF)	
Adjacent Channel	-65dB (VHF) / -60dB (UHF) -75dB (VHF) / -70dB (UHF)	
Selectivity per TIA 603		
Spurious Rejection	75dB (VHF), 70dB (UHF)	
Rated Audio Internal Speaker	4W	
External Speaker	13W	
Audio Distortion @ Rated Audio (typical)	3%	
Hum and Noise	-40dB (VHF) -35dB (UHF)	-45dB (VHF) -40dB (UHF)
Audio Response (0.3 – 3 kHz)	ETS 300 and TIA 603	
Spurious Emission (conducted and radiated)	-57 dBm < 1 GHz / -47 dBm > 1 GHz	

MILITARY STANDARDS	810C		810D		810E	
Applicable MIL-STD	Methods	Procedures	Methods	Procedures	Methods	Procedures
Temperature Shock	503.1	1	503.2	1	503.3	1
Solar Radiation	505.1	1	505.2	1	505.3	1
Salt Fog	509.1	1 (48 hours)	509.2	1 (48 hours)	509.3	1 (48 hours)
Vibration	-	-	514.3	Cat. 1	514.4	Cat. 1
Shock	516.2	1,3	516.3	1,5	516.4	1,5

Specifications subject to change without notice. All specifications and electrical methods refer to EIA/TIA 603 standards.

 Motorola Accelerated Life Test
 Meets IP54 Standard

 Military Standards MIL-SPECS 810 C, D, E

Contact your Motorola Representative for more information.



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